



## **Grain Transportation Report**

A weekly publication of the
Transportation and Marketing Programs/Transportation Services Branch
www.ams.usda.gov/tmdtsb/grain

Sept. 29, 2005

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The next release is Oct. 6, '05

Cost of Shipping Corn and Soybeans to Japan Decreases. Corn and soybean transportation costs from Minneapolis, MN, to Japan continued downward during second quarter 2005. This was due to a decline in ocean rates (tables 1 and 2). Minnesota corn and soybean costs to Japan through the Pacific Northwest (PNW) decreased just over 10 percent during this period. The cost of shipping through the Gulf decreased just over 6 percent. Total transportation cost represented more than half of the total landed cost for corn and about one quarter of the total landed cost for soybeans.

Ocean rates decreased during the second quarter by nearly 24 percent from the PNW, and almost 10 percent from the Gulf, compared with the first quarter. Weakening economic growth and a decrease in iron ore shipments to China reduced port congestion. In addition, India's monsoon rains and excess capacity contributed to the overall drop in ocean rates (see 8/4/05 GTR).

Table 1 -- Quarterly modal transportation cost comparison for corn from Minneapolis to Japan

	Gulf			PNW		
	1st	2 <sup>nd</sup>	Percent	1st	2nd	Percent
	Qtr '05	Qtr '05	Change	Qtr '05	Qtr '05	Change
	'- \$/me	tric ton -	%	'- \$/me	etric ton -	%
Truck	7.58	7.82	3.2	7.58	7.82	3.2
Barge <sup>1</sup>	18.42	18.93	2.8			
Rail-corn				39.68	39.68	-
Ocean <sup>2</sup>	60.98	54.95	-9.9	37.53	28.58	-23.8
<b>Total Transportation</b>	86.98	81.70	-6.1	84.79	76.08	-10.3
Farm Value <sup>3</sup>	75.19	75.32	0.2	75.19	75.32	0.2
Total Landed Cost	162.17	157.02	-3.2	159.98	151.4	-5.4
Transportation % of						
Landed Cost	53.64	52.03		53.00	50.25	

Table 2 -- Quarterly modal transportation cost comparison for soybeans from Minneapolis to Japan

	Guii		Pr	N VV		
	1st	2nd	Percent	1st	2nd	Percent
	Qtr '05	Qtr '05	Change	Qtr '05	Qtr '05	Change
	'- \$/	metric ton -	%	- \$/	metric ton -	%
Truck	7.58	7.82	3.2	7.58	7.82	3.2
Barge <sup>1</sup>	18.42	18.93	2.8			
Rail-soybeans				39.79	39.79	-
Ocean <sup>2</sup>	60.98	54.95	-9.9	37.53	28.58	-23.8
Total Transportation	86.98	81.70	-6.1	84.90	76.19	-10.3
Farm Value <sup>3</sup>	207.48	231.12	11.4	207.48	231.12	11.4
Total Landed Cost	294.46	312.82	6.2	292.38	307.31	5.1
Transportation % of						
Landed Cost	29.54	26.12		29.04	24.79	

<sup>&</sup>lt;sup>1</sup> The Mississippi River closes between Minneapolis to just north of St. Louis during mid-December to late March

Truck rates originating in the North Central region (see figure 8) increased 3 percent for corn and soybean exports in the second quarter, compared with the first quarter (tables 1 and 2). This increase was due in part to an increase in truck activity (table 11, this GTR and June 2, 2005, GTR) and diesel fuel costs (table 12, inside). Truck availability for the region remained constant.

Barge movements and transportation rates on the Upper Mississippi River are limited between December and March due to freezing temperatures and river closure. Overall, grain transportation demand is generally low during the first and second quarters, and increases with harvest during the third and fourth quarters. Corn and soybeans comprised 49 and 30 percent, respectively, of all outbound grain and oilseed movements on the Mississippi River during calendar year 2003. This is the most recently available data. (*Waterborne Commerce Statistics*, 2003). Karl.Hacker@USDA.gov

<sup>&</sup>lt;sup>2</sup> Source: The Baltic Exchange

<sup>&</sup>lt;sup>3</sup> Source: USDA/NASS

#### **Grain Transportation Indicators**

Table 1--Grain transport cost indicators\*

	Truck	Rail**	Barge	C	Ocean
Week ending				Gulf	Pacific
09/28/05	188	887	352	197	182
Compared with last week	<b>†</b>	<b>↓</b>	<b>†</b>	<b>†</b>	<b>↓</b>

\*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = nearby secondary rail market (\$/car);

barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

\*\*The rail indicator is not an index. It is the difference between the nearby secondary rail market bid for this week and the average bid for year 2000 (+) 100.

Source: Transportation & Marketing Programs/AMS/USDA

Table 2--Market update: U.S. origins to export position price spreads (\$/bushel)

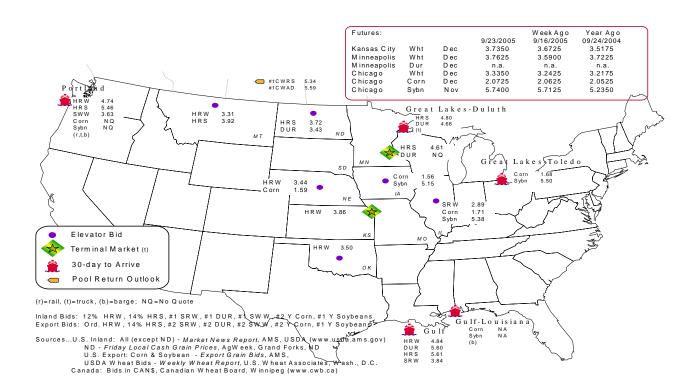
Commodity	Origindestination	9/23/2005	9/16/2005
Corn	ILGulf	n/a	-0.80
Corn	NEGulf	n/a	-0.94
Soybean	IAGulf	n/a	-0.92
HRW	KSGulf	-0.98	-0.95
HRS	NDPortland	-1.74	n/a

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1 **Grain bid summary** 



GTR 2 September 29, 2005

#### **Rail Transportation**

Table 3--Rail deliveries to port (carloads)\*

			Cross-Border	Pacific	Atlantic &	
Week ending	Mississippi Gulf	Texas Gulf	Mexico	Northwest	East Gulf	Total
9/21/2005 <sup>p</sup>	22	632	2,215	3,049	409	6,327
9/14/2005 <sup>r</sup>	78	2,923	1,904	4,537	190	9,632
2005 YTD	7,735	67,376	64,456	158,846	8,709	307,122
2004 YTD	5,890	73,330	42,065	145,336	5,140	271,761
2005 as % of 2004	131	92	153	109	169	113
Total 2004	10,475	92,073	67,992	209,625	10,986	391,151
Total 2003**	14,843	88,194	48,805	157,125	20,509	329,476

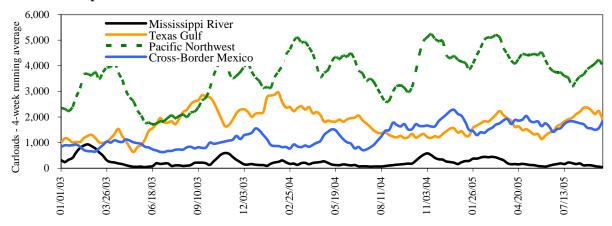
 $<sup>(*) \</sup> Incomplete \ Data; \ as \ of \ 9/22/04, \ Cross-Border \ movements \ included; \ (**) \ Excludes \ 53rd \ week; \ YTD = year-to-date; \ p = preliminary \ data; \ p =$ 

r = revised data

Source: Transportation & Marketing Programs/AMS/USDA

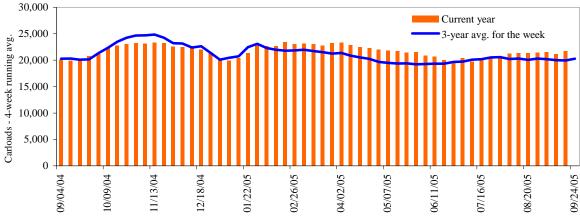
Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2 Rail deliveries to port



Source: Transportation & Marketing Programs/AMS/USDA

Figure 3 **Total weekly U.S. grain car loadings for Class I railroads** 



Source: Association of American Railroads

Table 4--Class I rail carrier grain car bulletin (grain carloads originated)

	E	ast		West		U.S. total	Cai	nada
Week ending	CSXT	NS	BNSF	KCS	UP		CN	CP
09/17/05	2,701	3,327	9,372	492	7,302	23,194	4,294	3,518
This week last year	2,160	3,245	8,896	591	6,561	21,453	2,969	3,522
2005 YTD	106,719	119,441	335,082	21,148	223,287	805,677	151,737	147,418
2004 YTD	100,340	118,690	319,522	18,346	238,206	795,104	168,265	144,521
2005 as % of 2004	106	101	105	115	94	101	90	102
Total 2004	142,206	169,650	458,587	27,618	327,510	1,125,571	237,664	210,060

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

Table 5--Rail car auction offerings\*, week ending 9/24/05 (\$/car)\*\*

Delivery for:	Nov-05	Dec-05	Jan-06
BNSF <sup>1</sup>			
COT/N. grain	\$588	\$568	\$472
COT/S. grain	no offer	no offer	\$577
$UP^2$			
GCAS/Region 1	no offer	no offer	no offer
GCAS/Region 2	no offer	no offer	no offer

<sup>\*</sup>Auction offerings are for single-car and unit train shipments only.

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

Rail service may be ordered directly from the railroad via **auction** for guaranteed service, or via tariff for nonguaranteed service, or through the secondary railcar market.

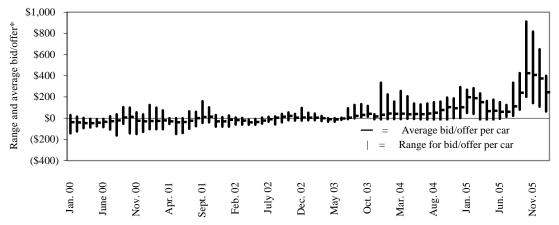
<sup>\*\*</sup>Average premium/discount to tariff, last auction

<sup>&</sup>lt;sup>1</sup>BNSF - COT = Certificate of Transportation

<sup>&</sup>lt;sup>2</sup>UP - GCAS = Grain Car Allocation System

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4 **Secondary rail car market, delivery month-year** 



\*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

**Average bid/offer** is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Range for bid/offer** shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Table 6--Weekly secondary rail car market, week ending 9/24/05 (\$/car)\*

	Delivery period					
	Nov-05	Dec-05	Jan-06	Feb-06		
BNSF-GF	\$817	\$650	\$400	\$338		
Change from last week	\$142	\$0	\$0	\$0		
UP-Pool	\$767	\$600	\$275	\$250		
Change from last week	\$92	\$17	\$0	\$0		

<sup>\*</sup>Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

Table 7--Tariff rail rates for unit and shuttle train shipments\*

Effective date:					
9/5/2005	Origin Region	Destination Region	Rate/car	Rate/metric ton	Rate/bushel**
<u>Unit train*</u>					
Wheat	Chicago, IL	Albany, NY	\$1,861	\$20.51	\$0.56
	Kansas City, MO	Galveston, TX	\$2,020	\$22.27	\$0.61
	South Central, KS	Galveston, TX	\$2,450	\$27.01	\$0.74
	Minneapolis, MN	Houston, TX	\$2,420	\$26.68	\$0.73
	St. Louis, MO	Houston, TX	\$2,360	\$26.01	\$0.71
	South Central, ND	Houston, TX	\$3,952	\$43.56	\$1.19
	Minneapolis, MN	Portland, OR	\$4,198	\$46.27	\$1.26
	South Central, ND	Portland, OR	\$4,141	\$45.65	\$1.24
	Northwest, KS	Portland, OR	\$4,490	\$49.49	\$1.35
	Chicago, IL	Richmond, VA	\$2,002	\$22.07	\$0.60
Corn	Chicago, IL	Baton Rouge, LA	\$2,510	\$27.67	\$0.70
	Council Bluffs, IA	Baton Rouge, LA	\$2,370	\$26.12	\$0.66
	Kansas City, MO	Dalhart, TX	\$1,965	\$21.66	\$0.55
	Minneapolis, MN	Portland, OR	\$3,720	\$41.01	\$1.04
	Evansville, IN	Raleigh, NC	\$1,791	\$19.74	\$0.50
	Columbus, OH	Raleigh, NC	\$1,700	\$18.74	\$0.48
	Council, Bluffs, IA	Stockton, CA	\$3,606	\$39.75	\$1.01
Soybeans	Chicago, IL	Baton Rouge, LA	\$2,455	\$27.06	\$0.74
	Council Bluffs, IA	Baton Rouge, LA	\$2,315	\$25.52	\$0.69
	Minneapolis, MN	Portland, OR	\$3,610	\$39.79	\$1.08
	Evansville, IN	Raleigh, NC	\$1,791	\$19.74	\$0.54
	Chicago, IL	Raleigh, NC	\$2,391	\$26.36	\$0.72
Shuttle Train*					
Wheat	St. Louis, MO	Houston, TX	\$1,820	\$20.06	\$0.55
	Minneapolis, MN	Portland, OR	\$3,898	\$42.97	\$1.17
Corn	Fremont, NE	Houston, TX	\$2,304	\$25.40	\$0.65
	Minneapolis, MN	Portland, OR	\$3,024	\$33.33	\$0.85
Soybeans	Council Bluffs, IA	Houston, TX	\$2,785	\$30.70	\$0.84
	Minneapolis, MN	Portland, OR	\$3,410	\$37.59	\$1.02

<sup>\*</sup>A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

<sup>\*\*</sup>Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Table 8--Tariff rail rates for U.S. bulk grain shipments to Mexico, 2005 Effective date: 09/05/05

Commodity	Origin State	<b>Border crossing region</b>	Train size	Rate <sup>1</sup>	Rate/metric ton	Rate/bushel**
Wheat	KS	Brownsville, TX	Shuttle	\$2,851	\$29.13	\$0.79
	ND	Eagle Pass, TX	Shuttle	\$5,399	\$55.17	\$1.50
	OK	El Paso, TX	Shuttle	\$2,264	\$23.13	\$0.63
	OK	El Paso, TX	Unit	\$2,432	\$24.85	\$0.68
	AR	Laredo, TX	Unit	\$2,383	\$24.35	\$0.66
	IL	Laredo, TX	Unit	\$3,188	\$32.57	\$0.89
	MT	Laredo, TX	Shuttle	\$4,298*	\$43.92	\$1.19
	TX	Laredo, TX	Shuttle	\$2,165	\$22.12	\$0.60
	MO	Laredo, TX	Shuttle	\$2,731	\$27.90	\$0.76
	WI	Laredo, TX	Unit	\$3,405	\$34.79	\$0.95
Corn	NE	Brownsville, TX	Shuttle	\$3,104	\$31.72	\$0.80
	NE	Brownsville, TX	Unit	\$3,645*	\$37.24	\$0.95
	IA	Eagle Pass, TX	Unit	\$3,334	\$34.07	\$0.86
	MO	Eagle Pass, TX	Shuttle	\$3,040*	\$31.06	\$0.79
	NE	Eagle Pass, TX	Shuttle	\$3,440*	\$35.15	\$0.89
	IA	Laredo, TX	Shuttle	\$3,258	\$33.29	\$0.84

Shuttle

Shuttle

Shuttle

Shuttle

Unit

\$2,880

\$3,176

\$2,688

\$2,765

\$2,918

\$0.80

\$0.88

\$0.75

\$0.77

\$0.81

\$29.43

\$32.45

\$27.47

\$28.25

\$29.82

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

Brownsville, TX

Brownsville, TX

Brownsville, TX

Eagle Pass, TX

Laredo, TX

Sources: www.bnsf.com, www.uprr.com

IΑ

MN

NE

NE

IA

Soybean

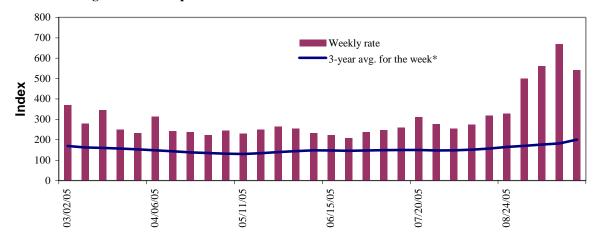
<sup>&</sup>lt;sup>1</sup>Rates are based upon published tariff rates for high-capacity rail cars.

<sup>\*</sup>High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

<sup>\*\*</sup>Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

#### **Barge Transportation**

Figure 5 Illinois River barge rate index - quotes



Note: Index = percent of tariff rate; \*4-week moving average Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market** bids are indicators of grain transport supply and demand.

Table 9--Barge rate quotes: southbound barge freight

Location	9/21/2005	9/14/2005	Oct. '05	Dec. '05
Twin Cities	485	550	538	n/a
Mid-Mississippi	508	645	560	n/a
Illinois River	542	670	560	363
St. Louis	509	703	563	330
Lower Ohio	552	704	551	350
Cairo-Memphis	550	767	519	313

Index = percent of tariff, based on 1976 tariff benchmark rate Source: Transportation & Marketing Programs/AMS/USDA

Benchmark tariff rates

# **Calculating barge rate per ton:** (Index \* 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

Note: The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam (L&D 8).

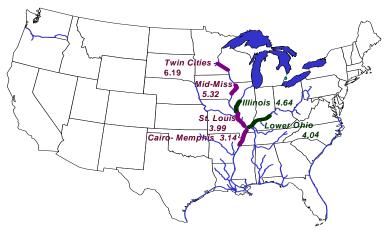
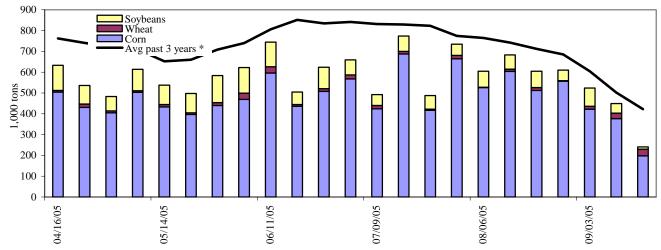


Figure 7 **Barge movements on the Mississippi River (Locks 27 - Granite City, IL)** 



\* 4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

Table 10--Barge grain movements (1,000 tons)

Week ending 9/17/2005	Corn	Wheat	Soybean	Other	Total
Mississippi River					
Rock Island, IL (L15)	101	12	3	2	118
Winfield, MO (L25)	150	26	9	0	185
Alton, IL (L26)	200	32	11	0	243
Granite City, IL (L27)	198	32	11	0	241
Illinois River (L8)	48	0	3	0	51
Ohio River (L52)	17	18	1	0	36
Arkansas River (L1)	0	14	18	15	47
2005 YTD	17,194	1,341	4,721	508	23,764
2004 YTD	18,024	2,152	2,815	525	23,516
2005 as % of 2004 YTD	95	62	168	97	101
Total 2004	26,235	2,701	6,784	843	36,563

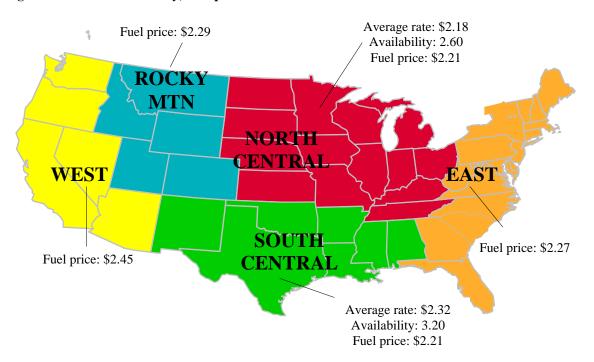
YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

Source: U.S. Army Corp of Engineers (www.mvr.usace.army.mil/mvrimi/omni/webrpts/default.asp)

Note: Total may not add exactly, due to rounding

#### **Truck Transportation**

Figure 8
U.S. grain truck market advisory, 2nd quarter 2005\*



\*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles

Note: Fuel prices are a quarterly average (unit per gallon)

Fuel price data source: Energy Information Administration, U.S. Department of Energy, <a href="www.eia.doe.gov">www.eia.doe.gov</a>

Table 11--U.S. grain truck market overview, 2nd quarter 2005

Region/commodity*	25 miles	100 miles	200 miles	Truck availability	Truck activity	Future truck activity	
		,		Rating compared to same quarter last year			
		Rate per mile		1=Very easy	1=M	uch lower	
	Rate per fille			to		to	
			5=Very difficult	5=M	uch higher		
National average <sup>1</sup>	3.03	2.10	1.75	2.8	2.9	3.3	
North Central region <sup>2</sup>	3.00	1.95	1.59	2.6	3.1	3.3	
Corn	3.08	2.47	1.87	2.0	3.3	3.5	
Wheat	2.49	1.88	1.50	2.9	3.0	3.3	
Soybean	3.08	2.47	1.87	2.0	3.3	3.5	
South Central region <sup>2</sup>	2.89	2.18	1.88	3.2	2.2	2.8	
Corn	2.60	1.96	1.78	3.3	2.3	2.8	
Wheat	2.56	1.99	1.68	3.3	2.7	3.2	
Soybean	3.87	2.49	2.18	3.0	2.0	2.8	

Rates are based on trucks with 80,000 lb gross vehicle weight limit

Source: Transportation and Marketing Programs/AMS/USDA

<sup>\*</sup>Commodity averages based on truck rates for top producing states based on National Agricultural Statistics Service/USDA

<sup>&</sup>lt;sup>1</sup>National average includes: AR, CO, IA, IL, IN, KS, LA, MN, MS, ND, NE, OH, OK, OR, SD, TX, and WA.

<sup>&</sup>lt;sup>2</sup>Commodity rates per mile include the average of the top 3 producing states within the region.

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

Table 12--Retail on-highway diesel prices\*, week ending 09/26/05 (US\$/gallon)

			Change from	
Region	Location	Price	Week ago	Year ago
I	East Coast	2.808	0.059	0.789
	New England	2.859	0.055	0.757
	Central Atlantic	2.875	0.029	0.783
	Lower Atlantic	2.775	0.073	0.794
II	Midwest	2.739	0.091	0.757
III	Gulf Coast	2.756	0.079	0.785
IV	Rocky Mountain	2.938	0.036	0.939
V	West Coast	2.978	-0.007	0.809
	California	3.031	-0.029	0.795
Total	U.S.	2.798	0.066	0.786

<sup>\*</sup>Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

## **Grain Exports**

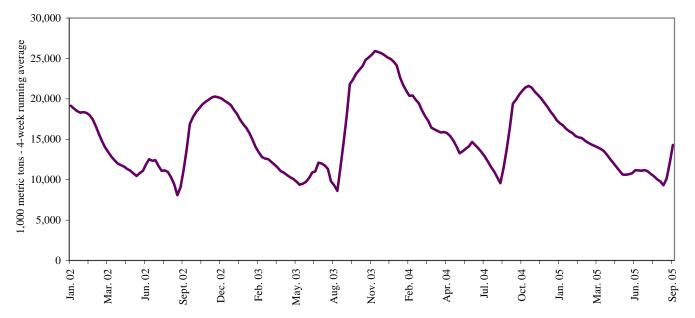
Table 13--U.S. export balances (1,000 metric tons)

			W	heat			Corn	Soybeans	Total
Week ending 1/	HRW	SRW	HRS	SWW	DUR	All wheat			
9/15/2005	2,496	389	1,281	993	94	5,252	7,818	5,017	18,087
This week year ago	1,665	875	1,235	1,109	84	4,968	7,896	7,215	20,079
Cumulative exports-crop year 2/									
2005/06 YTD	3,243	690	2,319	918	259	7,429	1,351	312	9,092
2004/05 YTD	3,129	1,416	2,461	1,412	192	8,609	1,634	463	10,706
2005/06 as % of 2004/05	104	49	94	65	135	86	83	67	85
2004/05 Total	9,407	3,217	8,083	4,773	686	26,117	44,953	29,878	100,948
2003/04 Total	12,697	3,785	6,928	4,895	1,053	29,359	47,704	24,108	101,171

Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31, 1/= Current unshipped export sales to date

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Figure 9 U.S. grain, unshipped export balance, including wheat, corn, and soybean sales



Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

<sup>2/ =</sup> Shipped export sales to date

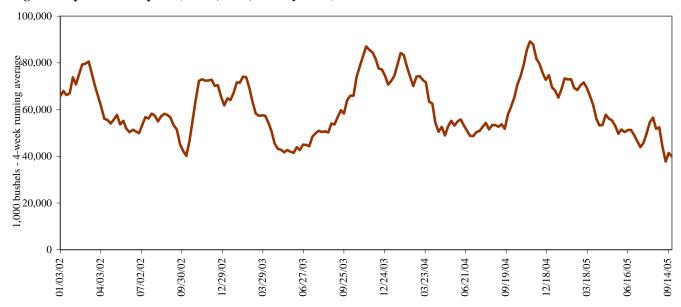
Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)

	Pa	acific Reg	ion	Mississippi Gulf		Texas Gulf			Port Region total			
Week ending	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
09/22/05	280	229	0	63	495	223	94	24	0	509	781	118
2005 YTD	7,028	7,559	3,563	3,562	19,300	9,284	5,130	465	6	18,151	32,146	5,601
2004 YTD	8,473	7,795	1,934	5,450	22,759	6,932	6,268	51	14	18,202	35,141	6,333
2005 as % of 2004	83	97	184	65	85	134	82	906	43	100	91	88
2004 Total *	12,121	9,741	4,753	7,154	32,851	15,540	7,936	131	23	26,615	55,546	8,089

Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa); YTD: year-to-date; \* includes 53rd week

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2004.

Figure 10 U.S. grain inspected for export (wheat, corn, and soybeans)



Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa)

## **Ocean Transportation**

Table 15--Weekly port region grain ocean vessel activity (number of vessels)

		Gulf		Pacific Northwest	Vancouver B.C.
		Loaded	Due next		
Date	In port	7-days	10-days	In port	In port
9/22/2005	18	24	33	12	5
9/15/2005	26	45	45	11	10
2004 range	(1043)	(2573)	(3896)	(416)	(018)
2004 avg.	24	45	61	9	6

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11 **Gulf Port grain vessel loading (past 7 days)** 



Source: Transportation & Marketing Programs/AMS/USDA

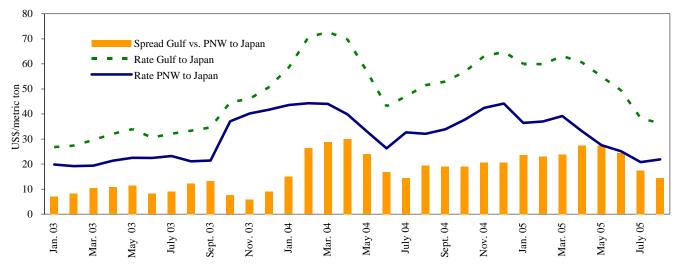
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Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US\$/metric ton)

Countries/ regions	2005 2nd qtr	2004 2nd qtr	Percent change	Countries/ regions	2005 2nd qtr	2004 2nd qtr	Percent change
Gulf to	_			Pacific NW to			
Japan		37.00		Japan			
Taiwan				Argentina/Brazil to			
N. Africa	44.83	35.33	27	N. Africa		63.58	
Med. Sea				Turkey	49.00	42.00	17

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12 **Grain vessel rates, U.S. to Japan** 



Source: Baltic Exchange (www.balticexchange.com)

Table 17--Ocean freight rates for selected shipments, week ending 09/24/05

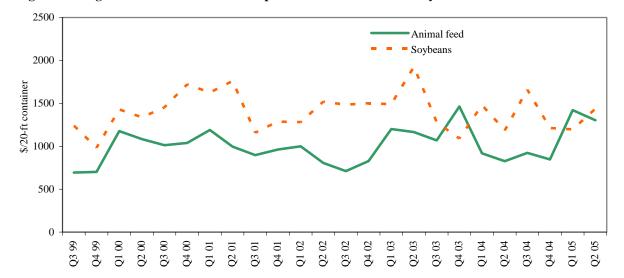
Export region	Import region	Grain	Month	Volume loads	Freight rate
				(metric tons)	(\$/metric ton)
U.S. Gulf	Haiti*	Wheat	Oct 20/30	10,000	69.95
U.S. Gulf	Japan	Hvy Grain	Aug 17/27	44,000	33.75
U.S. Gulf	Japan	Hvy Grain	Aug 1/10	54,000	37.50
U.S. Gulf	Libya or Sudan	Sorghum	Sept 25/Oct 5	21,410	48.22
Brazil	China	Hvy Grain	Sept 11/14	60,000	32.00
Brazil	Europe	Grains	Sept 20/25	20,000	35.00
River Plate	Algeria	Wheat	Sept 15/20	25,000	40.00
Ukraine	Algeria	Wheat	Sept 5/10	21,500	19.00
United Kingdom	Spain Mediterranean	Wheat	Aug 25/30	24,000	20.50
Poland	Spain Mediterranean	Hvy Grain	Aug 25/30	23,000	21.50

Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

Source: Maritime Research Inc. (www.maritime-research.com)

<sup>\*75</sup> percent of food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Figure 13
Weighted average rates<sup>1</sup> for containerized shipments of animal feed and soybeans to selected Asian countries



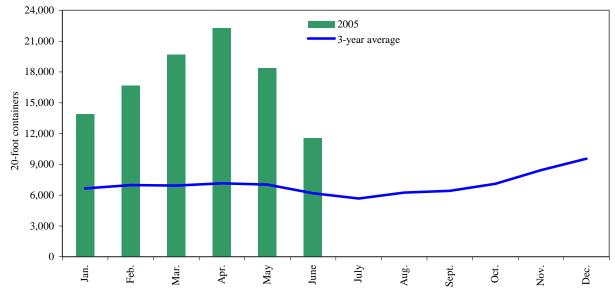
<sup>1</sup>Animal Feed: Busan-Korea (13%), Kaohsiung-Taiwan (41%), Tokyo-Japan (30%), Hong Kong (11%), Bangkok-Thailand (5%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (85%), Tokyo-Japan (11%), Bangkok-Thailand (3%), Hong Kong (1%) Quarter 2, 2005.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

During 2004, containers were used to transport 2 percent of total U.S. grain exported, and 3 percent of total U.S. grain exported to Asia.

 ${\bf Figure~14} \\ {\bf Monthly~shipments~of~containerized~grain~to~Asia~for~2005~compared~with~a~3-year~average} \\$ 

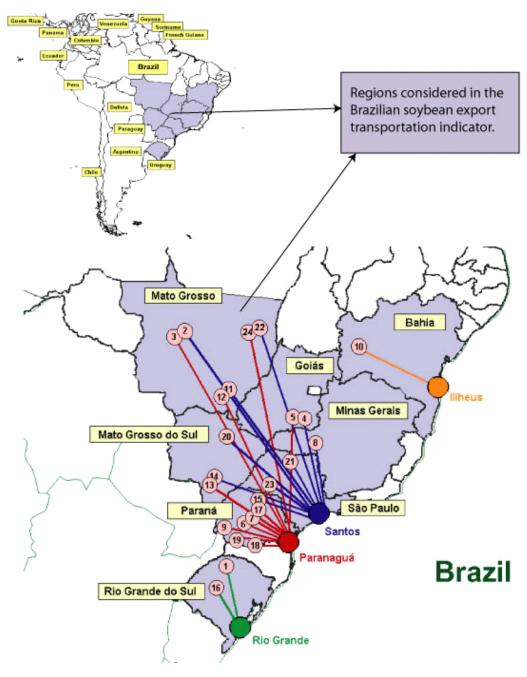


Source: Port Import Export Reporting Service (PIERS), Journal of Commerce

Note: PIERS data is available with a lag of approximately 40 days

## **Brazil Transportation**

Figure 15 Routes and Regions considered in the Brazilian soybean export transportation indicator <sup>1</sup>



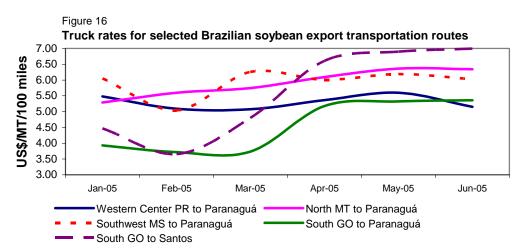
<sup>&</sup>lt;sup>1</sup>Regions comprised 84 percent of Brazilian soybean production, 2003 Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 18--Truck rates for selected Brazilian soybean export transportation routes, 2nd quarter 2005

	Origin <sup>1</sup>		Distance		Freight price
Route #	(reference city)	Destination	(miles) <sup>2</sup>	Weight(%) <sup>3</sup>	(per 100 miles) <sup>4</sup>
1	Northwest RS <sup>5</sup> (Cruz Alta)	Rio Grande	288	16.6	4.40
2	North MT(Sorriso)	Santos	1190	10.1	6.80
3	North MT(Sorriso)	Paranaguá	1262	9.5	6.27
4	South GO(Rio Verde)	Santos	587	7.0	6.83
5	South GO(Rio Verde)	Paranaguá	726	5.6	5.29
6	North Center PR(Londrina)	Paranaguá	268	4.4	8.51
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	5.37
8	Triangle MG(Uberaba)	Santos	339	3.8	10.75
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	5.16
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	7.14
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	6.26
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	5.63
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	6.07
14	Southwest MS(Maracaju)	Santos	652	2.9	6.31
15	West PR(Assis Chateaubriand)	Santos	550	2.5	5.68
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.49
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	5.73
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	10.77
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	7.95
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	5.60
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	7.59
22	Northeast MT(Canarana)	Santos	950	1.4	7.26
23	Assis SP(Palmital)	Santos	285	1.2	7.74
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	6.34
	Average		626	100	6.33

Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

<sup>&</sup>lt;sup>5</sup>RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

<sup>&</sup>lt;sup>2</sup>Distance from the main city of the considered region to the mentioned ports

<sup>&</sup>lt;sup>3</sup>The weight is directly proportional to the amount of production in each region

<sup>&</sup>lt;sup>4</sup>US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

Table 19--Monthly Brazilian soybean export truck transportation cost index

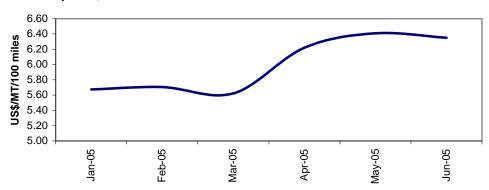
Tubic 17	Withing Druzman soybean	export truck trumsportation	ii cost iiiuca
Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan. 05	5.67	( <b>F</b>	100.00
Feb. 05	5.71	0.5	100.54
Mar. 05	5.62	-1.5	99.08
Apr. 05	6.22	10.6	109.61
May 05	6.41	3.1	112.96
Jun. 05	6.35	-0.9	111.90

<sup>\*</sup>weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

Brazilian soybean export truck transportation weighted average prices, 2005



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 20--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)\*

	2005	2005
Ports	1st qtr	2nd qtr
Santos	45.53	45.84
Paranagua	44.64	44.84**
Rio Grande	44.20	44.39

<sup>\*</sup>correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

<sup>\*\*</sup>Revised figure

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#### **Related Websites**

Agricultural Container Indicators
Ocean Rate Bulletin

http://www.ams.usda.gov/tmd2/agci/http://www.ams.usda.gov/tmd/Ocean/index.asp

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